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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2           "Ask CAS" for self-help around the clock
 NEWS  3  SEP 09   ACD predicted properties enhanced in REGISTRY/ZREGISTRY
 NEWS  4  OCT 03   MATHDI removed from STN
 NEWS  5  OCT 04   CA/CAplus-Canadian Intellectual Property Office (CIPO) added
                   to core patent offices
 NEWS  6  OCT 13   New CAS Information Use Policies Effective October 17, 2005
 NEWS  7  OCT 17   STN(R) AnaVist(TM), Version 1.01, allows the export/download
                   of CAplus documents for use in third-party analysis and
                   visualization tools
 NEWS  8  OCT 27   Free KWIC format extended in full-text databases
 NEWS  9  OCT 27   DIOGENES content streamlined
 NEWS 10  OCT 27   EPFULL enhanced with additional content
 NEWS 11  NOV 14   CA/CAplus - Expanded coverage of German academic research
 NEWS 12  NOV 30   REGISTRY/ZREGISTRY on STN(R) enhanced with experimental
                   spectral property data
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               CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 02 DECEMBER 2005.
               V8.0 USERS CAN OBTAIN THE UPGRADE TO V8.01 AT
               http://download.cas.org/express/v8.0-Discover/

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FILE 'HOME' ENTERED AT 11:27:39 ON 07 DEC 2005

=> index bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, ANTE, AQUALINE,
       AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOENG, BIOSIS, BIOTECHABS, BIOTECHDS,
       BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB,
       CROPU, DDFB, DDFU, DGENE, DISSABS, ...' ENTERED AT 11:27:52 ON 07 DEC 2005

74 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> (fluorescent or chromoprotein) and emission and maximum
         23   FILE AGRICOLA
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         96   FILE ANABSTR
          1   FILE ANTE
          9   FILE AQUALINE
         53   FILE AQUASCI
         18   FILE BIOBUSINESS
         46   FILE BIOENG
        824   FILE BIOSIS
         70   FILE BIOTECHABS
         70   FILE BIOTECHDS
        207   FILE BIOTECHNO
         64   FILE CABA
         43   FILE CANCERLIT
       2381   FILE CAPLUS
          7   FILE CEABA-VTB
          7   FILE CEN
          1   FILE CIN
          1   FILE CONFSCI
          8   FILE CROPU
          9   FILE DDFU
        594   FILE DGENE
         84   FILE DISSABS
  29 FILES SEARCHED...
         72   FILE DRUGU
          5   FILE EMBAL
        589   FILE EMBASE
        254   FILE ESBIOBASE
          9   FILE FEDRIP
          7   FILE FROSTI
         16   FILE FSTA
          2   FILE HEALSAFE
        618   FILE IFIPAT
        135   FILE JICST-EPLUS
          1   FILE KOSMET
        168   FILE LIFESCI
        774   FILE MEDLINE
         22   FILE NIOSHTIC '
         27   FILE NTIS
         19   FILE OCEAN
        361   FILE PASCAL
  57 FILES SEARCHED...
          3   FILE PHIN
        197   FILE PROMT
         22   FILE RDISCLOSURE
        878   FILE SCISEARCH
        228   FILE TOXCENTER
      22952   FILE USPATFULL
       2659   FILE USPAT2
          2   FILE VETU
         21   FILE WATER
        452   FILE WPIDS
          1   FILE WPIFV
        452   FILE WPINDEX

  51 FILES HAVE ONE OR MORE ANSWERS,    74 FILES SEARCHED IN STNINDEX

L1   QUE (FLUORESCENT OR CHROMOPROTEIN) AND EMISSION AND MAXIMUM

=> d rank
F1       22952   USPATFULL
F2        2659   USPAT2
F3        2381   CAPLUS
F4         878   SCISEARCH
F5         824   BIOSIS
F6         774   MEDLINE
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F7          618   IFIPAT
F8          594   DGENE
F9          589   EMBASE
F10         452   WPIDS
F11         452   WPINDEX
F12         361   PASCAL
F13         254   ESBIOBASE
F14         228   TOXCENTER
F15         207   BIOTECHNO
F16         197   PROMT
F17         168   LIFESCI
F18         135   JICST-EPLUS
F19          96   ANABSTR
F20          84   DISSABS
F21          72   DRUGU
F22          70   BIOTECHABS
F23          70   BIOTECHDS
F24          64   CABA
F25          53   AQUASCI
F26          46   BIOENG
F27          43   CANCERLIT
F28          27   NTIS
F29          23   AGRICOLA
F30          22   NIOSHTIC
F31          22   RDISCLOSURE
F32          21   WATER
F33          19   OCEAN
F34          18   BIOBUSINESS
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F38           9   FEDRIP
F39           8   CROPU
F40           7   CEABA-VTB
F41           7   CEN
F42           7   FROSTI
F43           5   EMBAL
F44           3   PHIN
F45           2   HEALSAFE
F46           2   VETU
F47           1   ANTE
F48           1   CIN
F49           1   CONFSCI
F50           1   KOSMET
F51           1   WPIFV


=> file biosis medline caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                2.95       3.16

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=> (fluorescent or chromoprotein) and emission and maximum and nm
L2          2641 (FLUORESCENT OR CHROMOPROTEIN) AND EMISSION AND MAXIMUM AND NM
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=> (fluorescent or chromoprotein) and emission and maximum and "far red shifted"
L3 1 (FLUORESCENT OR CHROMOPROTEIN) AND EMISSION AND MAXIMUM AND "FAR RED SHIFTED"

=> d ab bib

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

AB Nucleic acid compns. encoding Stichodactylidaen **chromoproteins** and **fluorescent** mutants thereof, as well as the polypeptide compns. encoded by the same, are provided. The proteins of interest are proteins that are colored and/or **fluorescent**, where this feature arises form the interaction of two or more residues of the protein. Also of interest are proteins that are substantially similar to, or mutants of, the above specific proteins, including non-aggregating mutants and mutants with modulated oligomerization characteristics as compared to wild type. Thus, the two wild-type **chromoprotein** isoforms from Heteractis crispa exhibit a strong **emission max.** at .apprx.580-640 nm. Site-specific mutagenesis of the Cys-148 residue to serine dramatically increases the quantum yield of red fluorescence as compared to the wild-type protein, and further random mutagenesis (A2S, T36A, C143S, L173H, P201L, K204E) yielded an even brighter mutant. A single mutation, L126H, may be responsible for modifying the oligomeric state of the protein from tetrameric to dimeric. Also provided are fragments of the nucleic acids and the peptides encoded thereby, as well as antibodies to the subject proteins and transgenic cells and organisms. The subject protein and nucleic acid compns. find use in a variety of different applications. Finally, kits for use in such applications, e.g., that include the subject nucleic acid compns., are provided.

AN 2002:293685 CAPLUS

DN 136:321045

TI **Far red-shifted fluorescent** proteins and their variants from Heteractis crispis

IN Lukyanov, Sergey Anatolievich; Fradkov, Arcady Fedorovich; Lukyanov, Konstantin Anatolievich; Gurskaya, Nadezda Georgievna

PA Clontech Laboratories, Inc., USA

SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 17

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002030965	A2	20020418	WO 2001-US32080	20011012
	WO 2002030965	A3	20030605		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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	AU 2002011722	A5	20020422	AU 2002-11722	20011012
	EP 1334122	A2	20030813	EP 2001-979797	20011012
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	JP 2004532606	T2	20041028	JP 2002-534350	20011012
PRAI	US 2000-240018P	P	20001012		
	US 2001-306131P	P	20010716		
	WO 2001-US32080	W	20011012		

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=> (fluorescent or chromoprotein) and emission and maximum and " red shifted"
L4          124 (FLUORESCENT OR CHROMOPROTEIN) AND EMISSION AND MAXIMUM AND "
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L6           56 L5 AND NM

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=> l6 and nucleic with acid
L8            1 L6 AND NUCLEIC WITH ACID

=> d ab bib

L8   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AB   Nucleic acid compns. encoding Stichodactylidaen
     chromoproteins and fluorescent mutants thereof, as well
     as the polypeptide compns. encoded by the same, are provided.  The
     proteins of interest are proteins that are colored and/or
     fluorescent, where this feature arises form the interaction of two
     or more residues of the protein.  Also of interest are proteins that are
     substantially similar to, or mutants of, the above specific proteins,
     including non-aggregating mutants and mutants with modulated
     oligomerization characteristics as compared to wild type.  Thus, the two
     wild-type chromoprotein isoforms from Heteractis crispa exhibit
     a strong emission max. at .apprx.580-640 nm.
     Site-specific mutagenesis of the Cys-148 residue to serine dramatically
     increases the quantum yield of red fluorescence as compared to the
     wild-type protein, and further random mutagenesis (A2S, T36A, C143S,
     L173H, P201L, K204E) yielded an even brighter mutant.  A single mutation,
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     The subject protein and nucleic acid compns. find use
     in a variety of different applications.  Finally, kits for use in such
     applications, e.g., that include the subject nucleic
     acid compns., are provided.
AN   2002:293685  CAPLUS
DN   136:321045
TI   Far red-shifted fluorescent proteins and
     their variants from Heteractis crispis
IN   Lukyanov, Sergey Anatolievich; Fradkov, Arcady Fedorovich; Lukyanov,
     Konstantin Anatolievich; Gurskaya, Nadezda Georgievna
PA   Clontech Laboratories, Inc., USA
SO   PCT Int. Appl., 81 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 17
     PATENT NO.          KIND   DATE        APPLICATION NO.         DATE
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PI   WO 2002030965        A2    20020418    WO 2001-US32080         20011012
     WO 2002030965        A3    20030605
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     EP 1334122           A2    20030813    EP 2001-979797         20011012
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PRAI US 2000-240018P      P     20001012
     US 2001-306131P      P     20010716
     WO 2001-US32080      W     20011012


=> l6 and" nucleic acid"
L9            1 L6 AND" NUCLEIC ACID"

=> d ab bib

L9   ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
AB   Nucleic acid compns. encoding Stichodactylidaen
     chromoproteins and fluorescent mutants thereof, as well
     as the polypeptide compns. encoded by the same, are provided. The
     proteins of interest are proteins that are colored and/or
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     acid compns., are provided.
AN   2002:293685  CAPLUS
DN   136:321045
TI   Far red-shifted fluorescent proteins and
     their variants from Heteractis crispis
IN   Lukyanov, Sergey Anatolievich; Fradkov, Arcady Fedorovich; Lukyanov,
     Konstantin Anatolievich; Gurskaya, Nadezda Georgievna
PA   Clontech Laboratories, Inc., USA
SO   PCT Int. Appl., 81 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 17
     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2002030965        A2    20020418    WO 2001-US32080        20011012
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     AU 2002011722        A5    20020422    AU 2002-11722          20011012
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PRAI US 2000-240018P      P     20001012
     US 2001-306131P      P     20010716
     WO 2001-US32080      W     20011012


=> l6 and anthozoan
L10          0 L6 AND ANTHOZOAN

=> l6 and polypeptide
L11          1 L6 AND POLYPEPTIDE

=> l5 and anthozoan
L12          0 L5 AND ANTHOZOAN

=> (fluorescent or chromoprotein) and emission and maximum and " red shifted" and
anthozoan
L13          0 (FLUORESCENT OR CHROMOPROTEIN) AND EMISSION AND MAXIMUM AND "
               RED SHIFTED" AND ANTHOZOAN

=> d l6 ti 1-20

L6   ANSWER 1 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   Two-photon excitation and emission spectra of the green
     fluorescent protein variants ECFP, EGFP and EYFP.

L6   ANSWER 2 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   The two photon cross section and spectrum of 6MAP, a fluorescent
     adenosine analog.

L6   ANSWER 3 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   Crystallization and preliminary X-ray diffraction analysis of the red
     fluorescent protein eqFP611.

L6   ANSWER 4 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   Steady-state and time-resolved fluorescence studies indicate an unusual
     conformation of 2-aminopurine within ATAT and TATA duplex DNA sequences.

L6   ANSWER 5 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   A far-red fluorescent protein with fast maturation and reduced
     oligomerization tendency from Entacmaea quadricolor (Anthozoa, Actinaria).

L6   ANSWER 6 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   Kinetic analysis of maturation and denaturation of DsRed, a coral-derived
     red fluorescent protein.

L6   ANSWER 7 OF 56  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
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TI Suitability of enhanced green **fluorescent** protein as a reporter component for bioassays.

L6 ANSWER 8 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI The structure of the chromophore within DsRed, a red **fluorescent** protein from coral.

L6 ANSWER 9 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Novel **fluorescent** protein from Discosoma coral and its mutants possesses a unique far-red fluorescence.

L6 ANSWER 10 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI **Fluorescent** probing of membrane potential in walled cells: diS-C3(3) assay in Saccharomyces cerevisiae.

L6 ANSWER 11 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Terminal Marking of Triosephosphate Isomerase: Consequences of Deamidation.

L6 ANSWER 12 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Quenching of intrinsic fluorescence of yeast cytochrome c peroxidase by covalently- and noncovalently-bound quenchers.

L6 ANSWER 13 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Low temperature absorbance and fluorescence spectroscopy of the photoactive yellow protein from Ectothiorhodospira halophila.

L6 ANSWER 14 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI PICOSECOND DECAY KINETICS AND QUANTUM YIELD OF FLUORESCENCE OF THE PHOTOACTIVE YELLOW PROTEIN FROM THE HALOPHILIC PURPLE PHOTOTROPHIC BACTERIUM ECTOTHIORHODOSPIRA-HALOPHILA.

L6 ANSWER 15 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI INTERACTION OF MUSCLE AND NON-MUSCLE TROPOMYOSINS WITH DNASE I.

L6 ANSWER 16 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI FLUORESCENCE SPECTROSCOPY OF BENZO-ALPHA-PYRENE DIOL EPOXIDE DNA ADDUCTS CONFORMATION-SPECIFIC **EMISSION** SPECTRA.

L6 ANSWER 17 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI CHARACTERIZATION OF THE FLUORESCENCE OF THE ANTITUMOR AGENT MITOXANTRONE.

L6 ANSWER 18 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI SPECTROFLUOROMETRIC STUDIES OF THE LIPID PROBE NILE RED.

L6 ANSWER 19 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI FLUORESCENCE OF HISTONES H-1 A TYROSINATE-LIKE FLUORESCENCE **EMISSION** IN CERATITIS-CAPITATA H-1 AT NEUTRAL PH VALUES.

L6 ANSWER 20 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI P AMINO BENZAMIDINE AS A **FLUORESCENT** PROBE FOR THE ACTIVE SITE OF SERINE PROTEASES.

=> d l6 ti 21-56

L6 ANSWER 21 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI THE INTERACTION OF HUMAN SERUM ALBUMIN AND HEMOPEXIN WITH PORPHYRINS.

L6 ANSWER 22 OF 56 MEDLINE on STN
TI Far-red **fluorescent** proteins evolved from a blue **chromoprotein** from Actinia equina.

L6 ANSWER 23 OF 56 MEDLINE on STN
TI Photophysics and biological applications of the environment-sensitive fluorophore 6-N,N-dimethylamino-2,3-naphthalimide.

L6 ANSWER 24 OF 56 MEDLINE on STN
TI Fluorescence and circular dichroism spectroscopic studies on bovine lactoperoxidase.

L6 ANSWER 25 OF 56 MEDLINE on STN
TI Salt-induced folding of alkaline denatured creatine kinase under high pH conditions.

L6 ANSWER 26 OF 56 MEDLINE on STN
TI Interaction of tryptophan residues of cytochrome P450scc with a highly specific fluorescence quencher, a substrate analogue, compared to acrylamide and iodide.

L6 ANSWER 27 OF 56 MEDLINE on STN
TI [Bertalanffy-like fluorescence staining with 3-dimethylamino-6-methoxyacridine].
Uber eine Bertalanffy-analoge Fluorochromierung mit 3-Dimethylamino-6-methoxyacridin.

L6 ANSWER 28 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Saturated red light-emitting copolymers of poly(aryleneethynylene)s with narrow-band-gap (NBG) units: Synthesis and luminescent properties

L6 ANSWER 29 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Synthesis and spectral properties of novel water-soluble near-infrared **fluorescent** indocyanines

L6 ANSWER 30 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI 7-(2-Methoxycarbonylvinyl)-3-hydroxychromones: new dyes with **red shifted** dual **emission**

L6 ANSWER 31 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI The synthesis and photophysical properties of a novel red-emitting dioxolane-substituted pentacene derivative

L6 ANSWER 32 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI High-Efficiency Saturated Red Emitting Polymers Derived from Fluorene and Naphthoselenadiazole

L6 ANSWER 33 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Facile synthesis of chlorophyll analog possessing a disulfide bond and formation of self-assembled monolayer on gold surface

L6 ANSWER 34 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cd(II) Sensing in Water Using Novel Aromatic Iminodiacetate Based **Fluorescent** Chemosensors

L6 ANSWER 35 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Synthesis and Optical and Electroluminescent Properties of Novel

Conjugated Copolymers Derived from Fluorene and Benzoselenadiazole

L6 ANSWER 36 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Development of novel cyanine dyes for diode laser induced fluorescence detection

L6 ANSWER 37 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Synthesis and properties of two polymerizable **fluorescent** monomers

L6 ANSWER 38 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI RGB **emission** using a dimesitylboryl-bithiophene derivative as a universal host and pentacene derivatives as the red emitters

L6 ANSWER 39 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Far **red-shifted fluorescent** proteins and their variants from Heteractis crispis

L6 ANSWER 40 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI The first genuine observation of **fluorescent** mononuclear phthalocyanine aggregates

L6 ANSWER 41 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Probing the donor and acceptor dye assemblies at the galleries of α-zirconium phosphate

L6 ANSWER 42 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Natural animal coloration can be determined by a nonfluorescent green **fluorescent** protein homolog

L6 ANSWER 43 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Synthesis and properties of soluble, **fluorescent** polyesters and polyethers with substituted m-terphenyl segments in the main chain

L6 ANSWER 44 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI The Formation and Behavior of **Fluorescent** Lewis Acid-Base Exciplexes and Triplexes

L6 ANSWER 45 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Fluorescence Properties of Benz[f]indole, a Wavelength and Quenching Selective Tryptophan Analog

L6 ANSWER 46 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Exploring the hydrophobic binding sites of calmodulin with **fluorescent** probes: Dynamic formation of the excimer

L6 ANSWER 47 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Influence of Chlorination on Chromophores and Fluorophores in Humic Substances

L6 ANSWER 48 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI An assessment of the usefulness of 5-hydroxytryptophan as an optical probe

L6 ANSWER 49 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Protonation of free 2,9-bis(p-biphenylyl)-1,10-phenanthrolinesites in a 56-membered macrocycle and in its ReI and CuIcomplexes Absorption spectra, luminescence properties, and excited state interactions

L6 ANSWER 50 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Aggregation state of dehydroergosterol in water and in a model system of membranes

L6 ANSWER 51 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Fluorescence and Photodimerization Studies of Cyano-Substituted

Diphenylbutadienes

L6 ANSWER 52 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Solvent effects on the **fluorescent emission** of some new benzimidazole derivatives

L6 ANSWER 53 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Toward red-emitting radiation tolerant chromophores

L6 ANSWER 54 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Chlorotetracycline-induced fluorescence from atherosclerotic plaque with UV laser excitation

L6 ANSWER 55 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI α-Tocopherol as a **fluorescent** probe. 1. Its spectroscopic characterization and use as a probe of liposome

L6 ANSWER 56 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
TI Formation of **fluorescent** derivatives of alcohol dehydrogenase and other proteins on UV irradiation

=> d ab bib 1,5,6,8,22,39
L13 HAS NO ANSWERS
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Search status keywords:
NONE ---- Display only the number of postings.
STATUS -- Display statistics of the search.
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L13 0 SEA (FLUORESCENT OR CHROMOPROTEIN) AND EMISSION AND MAXIMUM AND " RED SHIFTED" AND ANTHOZOAN

=> d l6 ab bib 1,5,6,8,22,39

L6 ANSWER 1 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AB Two-photon (TP) excitation (820-1150 **nm**) and **emission** (280-700 **nm**) spectra for the **fluorescent** proteins (FPs) ECFP3, EGFP3 and EYFP3 produced in human tumour cells were recorded. TP excitation spectra of pure and highly enriched samples were found to be more differentiated in comparison with their one-photon (OP) spectra. They exhibited more pronounced main and local **maxima**, which coincided among different purity grades within small limits. TP and OP **emission** spectra of pure and enriched samples were identical. However, in crude samples, excitation was slightly blue-shifted and **emission red-shifted**. The data indicate that both OP and TP excitation routes led to the same excited states of these molecules. The **emission** intensity is dependent on the pH of the environment for both types of excitation; the **emission** intensity **maximum** can be recorded in the alkaline range. Reconstitution of **emission** intensity after pH quenching was incomplete, albeit that the respective spectral profiles were identical to those prequenching. When **emission** data were averaged over the whole range of excitation, the resulting **emission** profile and **maximum** coincided with the data generated by optimal excitation. Therefore, out-of-**maximum** excitation, common practice in TP excitation microscopy, can be used for routine application.
AN 2005:168065 BIOSIS
DN PREV200500175603
TI Two-photon excitation and **emission** spectra of the green **fluorescent** protein variants ECFP, EGFP and EYFP.
AU Spiess, E. [Reprint Author]; Bestvater, F.; Heckel-Pompey, A.; Toth, K.; Hacker, M.; Stobrawa, G.; Feurer, T.; Wotzlaw, C.; Berchner-Pfannschmidt, U.; Porwol, T.; Acker, H.

CS Deutsch Krebsforschungszentrum, D-6900, Heidelberg, Germany
e.spiess@dkfz-heidelberg.de
SO Journal of Microscopy (Oxford), (March 2005) Vol. 217, No. 3, pp. 200-204. print.
CODEN: JMICAR. ISSN: 0022-2720.
DT Article
LA English
ED Entered STN: 4 May 2005
Last Updated on STN: 4 May 2005

L6 ANSWER 5 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AB We performed the biochemical and biophysical characterization of a red **fluorescent** protein, eqFP611, from the sea anemone Entacmaea quadricolor cloned in Escherichia coli. With an excitation **maximum** at 559 **nm** and an **emission maximum** at 611 **nm**, the recombinant protein shows the most **red-shifted emission** and the largest Stokes shift of all nonmodified proteins in the green **fluorescent** protein family. The protein fluoresces with a high quantum yield of 0.45, although it resembles the nonfluorescent members of this protein class, as inferred from the absence of the key amino acid serine at position 143. Fluorescence is constant within the range pH 4-10. Red fluorophore maturation reaches a level of 90% after apprxeq12 h by passing through a green intermediate. After complete maturation, only a small fraction of the green species (less than 1%) persists. The protein has a reduced tendency to oligomerize, as shown by its monomeric appearance in SDS/PAGE analysis and single-molecule experiments. However, it forms tetramers at higher concentrations in the absence of detergent. Fluorescence correlation spectroscopy reveals light-driven transitions between bright and dark states on submillisecond and millisecond time scales. Applicability of eqFP611 for in vivo labeling in eukaryotic systems was shown by expression in a mammalian cell culture.
AN 2002:558092 BIOSIS
DN PREV200200558092
TI A far-red **fluorescent** protein with fast maturation and reduced oligomerization tendency from Entacmaea quadricolor (Anthozoa, Actinaria).
AU Wiedenmann, Joerg; Schenk, Andreas; Roecker, Carlheinz; Girod, Andreas; Spindler, Klaus-Dieter; Nienhaus, G. Ulrich [Reprint author]
CS Department of Physics, University of Illinois at Urbana-Champaign, Urbana, IL, 61801, USA
uli@uiuc.edu
SO Proceedings of the National Academy of Sciences of the United States of America, (September 3, 2002) Vol. 99, No. 18, pp. 11646-11651. print.
CODEN: PNASA6. ISSN: 0027-8424.
DT Article
LA English
OS Genbank-AY130757; EMBL-AY130757; DDBJ-AY130757
ED Entered STN: 30 Oct 2002
Last Updated on STN: 30 Dec 2002

L6 ANSWER 6 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AB The red **fluorescent** protein DsRed recently cloned from Discosoma coral, with its significantly **red-shifted** excitation and **emission maxima** (558 and 583 **nm**, respectively), has attracted great interest because of its spectral complementation to other **fluorescent** proteins, including the green **fluorescent** protein and its enhanced mutant EGFP. We demonstrated that the much slower DsRed fluorescence development could be described by a three-step kinetic model, in contrast to the fast EGFP maturation, which was fitted by a one-step model. At pH below 5.0 DsRed fluorescence gradually decreased, and the rate and degree of this fluorescence inactivation depended on the pH value. The kinetics of fluorescence inactivation under acidic conditions was fitted by a two-exponential function where the initial inactivation rate was

proportional to the fourth power of proton concentration. Subsequent DsRed alkalization resulted in partial fluorescence recovery, and the rate and degree of such recovery depended on the incubation time in the acid. Recovery kinetics had a lag-time and was fitted minimally by three exponential functions. The DsRed absorbance and circular dichroism spectra revealed that the fluorescence loss was accompanied by protein denaturation. We developed a kinetic mechanism for DsRed denaturation that includes consecutive conversion of the initial state of the protein, protonated by four hydrogen ions, to the denatured one through three intermediates. The first intermediate still emits fluorescence, and the last one is subjected to irreversible inactivation. Because of tight DsRed tetramerization we have suggested that obligatory protonation of each monomer results in the fluorescence inactivation of the whole tetramer.

AN 2002:149199 BIOSIS
DN PREV200200149199
TI Kinetic analysis of maturation and denaturation of DsRed, a coral-derived red **fluorescent** protein.
AU Verkhusha, V. V. [Reprint author]; Akovbian, N. A.; Efremenko, E. N.; Varfolomeyev, S. D.; Vrzheshch, P. V.
CS Center for Molecular Medicine, Lomonosov Moscow State University, Moscow, 119899, Russia
vrzh@genebee.msu.ru
SO Biochemistry (Moscow), (December, 2001) Vol. 66, No. 12, pp. 1342-1351. print.
CODEN: BIORAK. ISSN: 0006-2979.
DT Article
LA English
ED Entered STN: 14 Feb 2002
Last Updated on STN: 26 Feb 2002

L6 ANSWER 8 OF 56 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AB DsRed, a brilliantly red **fluorescent** protein, was recently cloned from Discosoma coral by homology to the green **fluorescent** protein (GFP) from the jellyfish Aequorea. A core question in the biochemistry of DsRed is the mechanism by which the GFP-like 475-**nm** excitation and 500-**nm** **emission** **maxima** of immature DsRed are red-**shifted** to the 558-**nm** excitation and 583-nm **emission** **maxima** of mature DsRed. After digestion of mature DsRed with lysyl endopeptidase, high-resolution mass spectra of the purified chromophore-bearing peptide reveal that some of the molecules have lost 2 Da relative to the peptide analogously prepared from a mutant, K83R, that stays green. Tandem mass spectrometry indicates that the bond between the alpha-carbon and nitrogen of Gln-66 has been dehydrogenated in DsRed, extending the GFP chromophore by forming -CdbdN-CdbdO at the 2-position of the imidazolidinone. This acylimine substituent quantitatively accounts for the red shift according to quantum mechanical calculations. Reversible hydration of the CdbdN bond in the acylimine would explain why denaturation shifts mature DsRed back to a GFP-like absorbance. The CdbdN bond hydrolyses upon boiling, explaining why DsRed shows two fragment bands on SDS/PAGE. This assay suggests that conversion from green to red chromophores remains incomplete even after prolonged aging.
AN 2001:12180 BIOSIS
DN PREV200100012180
TI The structure of the chromophore within DsRed, a red **fluorescent** protein from coral.
AU Gross, Larry A.; Baird, Geoffrey S.; Hoffman, Ross C.; Baldridge, Kim K.; Tsien, Roger Y. [Reprint author]
CS University of California, San Diego, 9500 Gilman Drive, 310 Cellular and Molecular Medicine West 0647, La Jolla, CA, 92093-0647, USA
SO Proceedings of the National Academy of Sciences of the United States of America, (October 24, 2000) Vol. 97, No. 22, pp. 11990-11995. print.
CODEN: PNASA6. ISSN: 0027-8424.

DT Article
LA English
ED Entered STN: 27 Dec 2000
Last Updated on STN: 27 Dec 2000

L6 ANSWER 22 OF 56 MEDLINE on STN
AB Proteins of the GFP (green **fluorescent** protein) family demonstrate a great spectral and phylogenetic diversity. However, there is still an intense demand for **red-shifted** GFP-like proteins in both basic and applied science. To obtain GFP-like **chromoproteins** with **red-shifted** absorption, we performed a broad search in blue-coloured Anthozoa species. We revealed specimens of Actinia equina (beadlet anemone) exhibiting a bright blue circle band at the edge of the basal disc. A novel blue **chromoprotein**, aeCP597, with an absorption **maximum** at 597 **nm** determining the coloration of the anemone basal disk was cloned. AeCP597 carries a chromophore chemically identical with that of the well-studied DsRed (red **fluorescent** protein from Discosoma sp.). Thus a strong 42-**nm** bathochromic shift of aeCP597 absorption compared with DsRed is determined by peculiarities of chromophore environment. Site-directed and random mutagenesis of aeCP597 resulted in far-red **fluorescent** mutants with **emission maxima** at up to 663 **nm**. The most bright and stable mutant AQ143 possessed excitation and **emission maxima** at 595 and 655 **nm** respectively. Thus aeCP597 and its **fluorescent** mutants set a new record of **red-shifted** absorption and **emission maxima** among GFP-like proteins.
AN 2005640113 IN-PROCESS
DN PubMed ID: 16164420
TI Far-red **fluorescent** proteins evolved from a blue **chromoprotein** from Actinia equina.
AU Shkrob Maria A; Yanushevich Yurii G; Chudakov Dmitriy M; Gurskaya Nadya G; Labas Yulii A; Poponov Sergey Y; Mudrik Nikolay N; Lukyanov Sergey; Lukyanov Konstantin A
CS Shemiakin-Ovchinnikov Institute of Bioorganic Chemistry, Miklukho-Maklaya 16/10, 117997 Moscow, Russia.
SO Biochemical journal, (2005 Dec 15) 392 (Pt 3) 649-54.
Journal code: 2984726R. ISSN: 1470-8728.
CY England: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS NONMEDLINE; IN-DATA-REVIEW; IN-PROCESS; NONINDEXED; Priority Journals
ED Entered STN: 20051203
Last Updated on STN: 20051203

L6 ANSWER 39 OF 56 CAPLUS COPYRIGHT 2005 ACS on STN
AB Nucleic acid compns. encoding Stichodactylidaen **chromoproteins** and **fluorescent** mutants thereof, as well as the polypeptide compns. encoded by the same, are provided. The proteins of interest are proteins that are colored and/or **fluorescent**, where this feature arises form the interaction of two or more residues of the protein. Also of interest are proteins that are substantially similar to, or mutants of, the above specific proteins, including non-aggregating mutants and mutants with modulated oligomerization characteristics as compared to wild type. Thus, the two wild-type **chromoprotein** isoforms from Heteractis crispa exhibit a strong **emission max**. at .apprx.580-640 **nm**. Site-specific mutagenesis of the Cys-148 residue to serine dramatically increases the quantum yield of red fluorescence as compared to the wild-type protein, and further random mutagenesis (A2S, T36A, C143S, L173H, P201L, K204E) yielded an even brighter mutant. A single mutation, L126H, may be responsible for modifying the oligomeric state of the protein from tetrameric to dimeric. Also provided are fragments of the nucleic acids and the peptides encoded

thereby, as well as antibodies to the subject proteins and transgenic cells and organisms. The subject protein and nucleic acid compns. find use in a variety of different applications. Finally, kits for use in such applications, e.g., that include the subject nucleic acid compns., are provided.

AN 2002:293685 CAPLUS

DN 136:321045

TI Far **red-shifted fluorescent** proteins and their variants from Heteractis crispis

IN Lukyanov, Sergey Anatolievich; Fradkov, Arcady Fedorovich; Lukyanov, Konstantin Anatolievich; Gurskaya, Nadezda Georgievna

PA Clontech Laboratories, Inc., USA

SO PCT Int. Appl., 81 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 17

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002030965	A2	20020418	WO 2001-US32080	20011012
	WO 2002030965	A3	20030605		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2425318	AA	20020418	CA 2001-2425318	20011012
	AU 2002011722	A5	20020422	AU 2002-11722	20011012
	EP 1334122	A2	20030813	EP 2001-979797	20011012
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004532606	T2	20041028	JP 2002-534350	20011012
PRAI	US 2000-240018P	P	20001012		
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	WO 2001-US32080	W	20011012		